Can Patients Be Part of the Solution? Views on Their Role in Preventing Medical Errors

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Patients have the potential to play an important role in preventing medical errors. Yet little is known about how to effectively engage patients in this role as a “vigilant partner” in care. Respondents were asked to assess the perceived effectiveness of fourteen recommended actions for preventing medical errors. The findings indicate that most of the actions are viewed as effective. However, respondents also indicate that they are unlikely to engage in many of the recommended actions. Having a greater sense of self-efficacy in being able to prevent medical errors is significantly linked with a greater reported likelihood of engaging in preventive action.

Keywords: medical errors; patient safety; patient involvement in care

The final report of the President’s Advisory Commission on Consumer Protection and Quality in the Health Care Industry (1998) identified medical errors as one of the four major challenges facing the nation in improving health care quality. Since that time, considerable attention and effort have been directed at understanding and preventing errors. The release of the Insti-
tute of Medicine’s report *To Err is Human* (Kohn, Corrigan, and Donaldson, 2000) dramatically raised public awareness of the problem of medical errors; recent research also has shown that a substantial number of consumers have had first-hand or second-hand experience with medical errors (Kaiser Family Foundation 2000; Blendon et al. 2002).

There is evidence that much of the harm resulting from medical errors can be avoided; perhaps as much as 70 percent of the injuries from medical errors are preventable (Leape et al. 1998). Care-delivery systems changes have been the focus of error-prevention activity. However, patients and their families can also play an important role in preventing medical errors. Patients and family members who are alert to the risk of errors can be more vigilant in monitoring what happens to them while in the hospital. By being informed and alert to their medication regimens, by ensuring medication accuracy on all orders, and by providing all pertinent information to staff, patients can be part of the team effort to reduce errors. When the information is available and they have a choice, consumers can also protect themselves by choosing hospitals with lower rates of complications and preventable deaths.

More than two out of five adults (42 percent) have been involved, either personally or through a friend or relative, in a situation where a medical mistake was made (National Patient Safety Foundation 1997). Two recent studies using consumer focus groups explored the question of how consumers see their role in prevention (Swift et al. 2001; VHA 2001). One study exploring prevention of errors with consumers found that participants were generally aware of errors and did not consider them to be an unusual occurrence. However, participants were unable to identify factors critical to preventing errors in a hospital; they also could not determine whether they had received proper treatment (VHA 2001).

Little is known about how to tap into the potential resource that consumers and patients may represent in error prevention. A key question is how to effectively engage consumers in this role as a “vigilant partner” in care. Communicating about errors is sensitive, and it is not clear how best to mobilize consumers to action without paralyzing them with fear or producing counterproductive behavior, such as avoiding care altogether. While the media coverage tends to raise public alarm on the topic, the health care sector is perhaps going too far in the other direction of undercommunicating about the problem. For example, the sensitivity of the topic has prompted the health care sector to use the term patient safety while the media talks about medical errors. Yet it is not clear that the public even understands what the term patient safety means. If consumers are to play a role in preventing errors, it is critical that communications about the problem and possible solutions be clear and understandable to the lay public.

The Agency for Healthcare Research and Quality (2000) has provided consumers with a list of actions they can take to protect themselves from errors while in the hospital. We know very little about the degree to which patients are willing to engage in these types of actions or how effective they are perceived to be in preventing errors. Findings from focus groups with Medicare beneficiaries indicate that there is reluctance to engage in some of the recommended actions (Swift et al. 2001).

**CONCEPTUAL MODEL**

The Health Belief Model (Rosenstock, Strecher, and Becker 1988), which has been used to predict and influence a number of health-related behaviors, informed the research questions and the design of this investigation. This model posits that key variables are necessary for individuals to engage in preventive and protective actions, including

- perceiving a serious threat;
- perceiving that the recommended behavior will be effective in protecting them from the threat;
- overcoming barriers or a willingness to pay the costs (tangible and/or psychological) associated with engaging in the action;
- cues in the environment to take the action (e.g., awareness of the threat); and
- confidence in the ability to effectively take the action.

This latter point refers to having a sense of self-efficacy for engaging in preventive actions to prevent medical errors. Bandura (1991) points out that self-efficacy beliefs are key to understanding behavior. “People’s level of motivation, affective states, and actions are based more on what they believe than on what is objectively true” (Bandura 1997, 2). People draw on their knowledge and experience to understand risks, their options for avoiding them, and the potential for the success of those avoidance behaviors (Bandura 1997). In this investigation we assess the degree to which respondents perceive recommended preventive actions as effective, how they respond to likely barriers (e.g., the psychological costs of questioning the authority and knowledge of medical personnel), and the degree to which they have a sense of self-efficacy for being able to prevent medical errors.

**NEW CONTRIBUTION**

Thus far, the efforts in patient safety have focused almost exclusively on making changes at the institutional and/or provider level. Even though there
is recognition that patients can play an important part in making health care safer, there is no understanding of how to effectively engage them or the larger public in the issue. The extent to which patients are willing and able to take part in efforts to make their own care safer is largely unknown. Having insight into how consumers view the risks of medical errors, how they perceive the effectiveness of recommended protective actions, and how self-efficacious they feel in protecting themselves are necessary first steps for crafting effective educational interventions and communication strategies aimed at the public.

RESEARCH QUESTIONS

- How do consumers respond to the terms patient safety and medical errors? Do they think they are equally important?
- How effective are the recommended actions perceived to be in protecting against errors?
- How willing are consumers to engage in recommended actions to prevent medical errors?
- How much do consumers feel that they can prevent errors?
- What factors are related to a greater sense of self-efficacy in preventing medical errors?
- Are people who have a greater sense of self-efficacy in preventing errors more likely to report that they would engage in recommended error prevention actions?
- What are the causal pathways that influence the likelihood of taking error prevention actions?

METHOD

Study participants were asked to assess the effectiveness of fourteen recommended actions for preventing medical errors and the likelihood they would engage in these preventive actions. The fourteen preventive actions were selected from the Agency for Healthcare Research and Quality’s twenty tips for avoiding medical errors and from those used in focus groups conducted by the Centers for Medicare and Medicaid Services (Swift et al. 2001; Agency for Healthcare Research and Quality 2000). In addition, respondents were asked to respond to scenarios about twenty-nine different possible medical errors and to assess them on a number of dimensions, including how likely they were to occur, how harmful they might be, and how preventable they are. The twenty-nine scenarios were very brief, did not indicate outcomes (whether harm occurred or not), and covered very minor events (e.g., “a routinely used test to detect disease in early stages is not done” or “a patient is given unnecessary X rays”) to very serious events (e.g., “an instrument is left inside a patient during surgery” or “surgery is performed on the wrong patient”). In addition, some of the medical error scenarios would be more easily preventable by the patient, while others would be more difficult for patients to prevent. See the appendix for a full list of the twenty-nine scenarios. Experiences in getting care, health status, and demographics were also part of the data collection.

The instrument was pretested using cognitive interviews with respondents. Cognitive interviews focused on participant understanding of the items and of the tasks they were asked to do. Revisions to the study instruments were made based on these cognitive interviews.

STUDY SAMPLE

A convenience sample of 195 participants was recruited through a flyer distributed to the University of Oregon classified staff. Excluded from the study were faculty members and anyone with an employment history in health care. Respondents were drawn from clerical staff, food service workers, and maintenance workers. Participants had a mean age of forty-two years (with a range of twenty to sixty-six years old), and 71 percent were female. Participants were primarily Caucasian (81.5 percent). Twelve percent had a high school education or less, while 55.4 percent were college graduates. Fourteen percent listed their health as fair or poor. Respondents were paid $15 and completed the questionnaire in approximately forty-five minutes.

Although a convenience sample, these participants are similar to a national sample with regard to their experience with medical errors. Forty-four percent of participants reported that they or a family member had experienced a medical error. This is very close to the rate (42.4 percent) that was reported recently in a national random sample (Blendon et al. 2002).

ANALYSIS

The analysis begins with univariate and bivariate assessments of consumer views on the effectiveness of preventive actions and the likelihood that they would engage in those actions. The degree to which consumers have a sense of self-efficacy for preventing errors is also explored. The analysis then moves to a path-analytic model to examine possible causal pathways that lead to taking prevention actions. Amos, an SPSS statistical program for doing structural modeling, is used in the analysis (Byrne 2001).
RESULTS

How do consumers respond to the terms patient safety and medical errors? All respondents were asked two separate questions: “How serious do you think the problem of patient safety is in the United States today?” and “How serious do you think the problem of medical errors is in the United States today?” Overall, respondents thought that patient safety was less of a serious problem than medical errors. Twenty-seven percent thought that patient safety was not a serious problem, while only 23 percent thought that medical error was not a serious problem (p = .05). The term patient safety is widely used within the healthcare industry to refer to medical error prevention. Yet patient safety may be thought to be of lesser import than medical errors. It is likely that respondents do not understand that patient safety and medical errors refer to the same topic.

How effective are recommended actions perceived to be in protecting against errors? How likely are consumers to engage in these recommended actions? Overall, most of the recommended actions are viewed as highly effective (see Table 1). The recommended actions that are more long standing, and therefore likely more familiar to respondents, are perceived to be more effective. For example, “choosing a surgeon based on his or her experience” and “making sure your doctor knows about the prescription drugs you are taking” are actions that have been recommended to consumers for some time. Perceived as less effective, although still relatively highly rated for effectiveness, are actions that are “newer” and likely less familiar (e.g., “choosing a hospital that has a computer system for tracking each patient’s medication”) or actions that require patients to question medical professionals about their judgments or actions (e.g., “having your surgeon mark where the surgery will be”; “talking to your doctor about which hospital has fewer problems with medical errors”; or “asking health care workers who come in contact with you if they have washed their hands”).

These latter categories of behaviors that are unfamiliar or newer, or that require questioning medical personnel, are the least likely actions to be taken. Likelihood ratings for these actions are quite low, indicating that most people would not engage in these actions. Respondents are apparently reluctant to step out of the traditional patient role and question medical professionals about their judgments and/or actions, even when they think this questioning might be effective in protecting them from harm.

Thus, those behaviors that are viewed as effective but that require a new or uncomfortable action (e.g., questioning a physician’s judgment or actions) are the least likely actions for respondents to adopt. Table 2 shows the preventive actions grouped into these three categories: long-standing recommended actions, actions that are relatively new, and actions that are relatively uncommon.

<table>
<thead>
<tr>
<th>Item</th>
<th>Perceived Effectiveness Score</th>
<th>Likelihood of Taking Preventive Action Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Choosing your surgeon based on his or her level of experience with your surgery</td>
<td>5.30</td>
<td>4.25</td>
</tr>
<tr>
<td>2. Making sure all of your doctors know about every prescription medicine you are taking</td>
<td>5.26</td>
<td>4.76</td>
</tr>
<tr>
<td>3. Making sure that all of your doctors know about any allergies or adverse reactions you have to medications</td>
<td>5.25</td>
<td>4.84</td>
</tr>
<tr>
<td>4. Confirming whether you are getting the right medication and dose</td>
<td>5.22</td>
<td>3.00</td>
</tr>
<tr>
<td>5. Making sure that your hospital has a lot of experience doing the procedure or surgery for which you are going in</td>
<td>5.18</td>
<td>4.77</td>
</tr>
<tr>
<td>6. Bringing someone who can be your advocate to the hospital</td>
<td>5.18</td>
<td>4.79</td>
</tr>
<tr>
<td>7. Finding out the results of any test at the hospital if you are not told</td>
<td>5.13</td>
<td>5.47</td>
</tr>
<tr>
<td>8. Making sure all of your doctors know about all of the over-the-counter medicines and dietary supplements such as vitamins and herbs you are taking</td>
<td>4.98</td>
<td>4.10</td>
</tr>
<tr>
<td>9. Making sure that someone, such as your personal doctor, is in charge of your care during your hospital stay</td>
<td>4.62</td>
<td>3.92</td>
</tr>
<tr>
<td>10. Choosing a hospital based on a report that compares medical errors in different hospitals</td>
<td>4.60</td>
<td>3.23</td>
</tr>
<tr>
<td>11. Having your surgeon mark where the surgery will be</td>
<td>4.53</td>
<td>3.11</td>
</tr>
<tr>
<td>12. Choosing a hospital that has a computer system for tracking each patient’s medication and medication history</td>
<td>4.38</td>
<td>2.57</td>
</tr>
<tr>
<td>13. When choosing a hospital, talking to your doctor about which hospital has fewer problems with medical errors</td>
<td>4.29</td>
<td>2.68</td>
</tr>
<tr>
<td>14. Asking health care workers who come in contact with you if they have washed their hands</td>
<td>3.54</td>
<td>1.73</td>
</tr>
<tr>
<td>Summary index of all 14 items</td>
<td>4.82</td>
<td>3.81</td>
</tr>
</tbody>
</table>

Note: For the scale measuring the effectiveness of preventive actions, 0 = not at all effective, 6 = very effective. For the scale measuring the likelihood of taking preventive actions, 0 = not at all likely, 6 = very likely.
TABLE 2 Components of Action Indices and Mean Scores

<table>
<thead>
<tr>
<th>Action Index</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longstanding recommended actions (average score on likelihood of taking preventive action = 4.6)</td>
<td>Finding out the results of any test at the hospital if you are not told</td>
</tr>
<tr>
<td></td>
<td>Making sure that all of your doctors know about any allergies or adverse reactions you have to medications</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Making sure that someone, such as your personal doctor, is in charge of your care during your hospital stay</td>
</tr>
<tr>
<td>Newer recommended actions (average score on likelihood of taking preventive action = 2.9)</td>
<td>Choosing a hospital based on a report that compares medical errors in different hospitals</td>
</tr>
<tr>
<td>Recommended actions that require questioning (average score on likelihood of taking preventive action = 2.6)</td>
<td>Choosing a hospital that has a computer system for tracking each patient’s medication and medication history</td>
</tr>
<tr>
<td></td>
<td>Having your surgeon mark where the surgery will be</td>
</tr>
<tr>
<td></td>
<td>Confirming whether you are getting the right medication and dose</td>
</tr>
<tr>
<td></td>
<td>When choosing a hospital, talking to your doctor about which hospital has fewer problems with medical errors</td>
</tr>
<tr>
<td></td>
<td>Asking health care workers who come in contact with you if they have washed their hands</td>
</tr>
</tbody>
</table>

NOTE: For the Scale Measuring the Likelihood of Taking Preventive Actions, 0 = not at all likely, 6 = very likely.

actions, newer actions, and actions that require questioning medical authority. Mean scores on the likelihood of engaging in actions in each group are also shown. Respondents are much more likely to indicate they will engage in actions in the “long-standing” category. The analysis was also performed using median scores, instead of means. Median scores do not change the ordering on effectiveness (except “bringing an advocate” moves up in perceived effectiveness and in likelihood).

How efficacious do consumers feel in their ability to prevent errors? What factors are related to a greater sense of self-efficacy? Study respondents were asked, “How much can you rely on your own knowledge and alertness to protect yourself from medical errors?” Possible responses ranged from 0 (not at all) to 6 (can rely a lot). In the analysis, we use this as a measure of self-efficacy for prevention of medical errors. The study sample was well distributed on this construct, with 21 percent of respondents indicating low self-efficacy for error prevention (responding 0–2), 27 percent indicating high self-efficacy (responding 5–6), and the other 52 percent indicating moderate self-efficacy (responding 3–4).

Few items were related to a sense of self-efficacy in preventing errors (see Table 3). Neither experience with errors nor higher rates of use were related to a greater sense of self-efficacy. Gender and education were unrelated to a sense of self-efficacy in preventing errors. However, having had family members in the hospital in the last year and having read about medical errors were related to a greater sense of efficacy.

Furthermore, it appears that simply participating in the study and responding to other items increased respondents’ sense of self-efficacy. In the study, we asked participants the self-efficacy question at the beginning of their participation (“how much can you rely on your own knowledge and alertness to protect yourself from medical errors that can harm you?”). They were also asked about how much they could rely on their doctor and the medical staff at the local hospital, as well as the medical system in general, to prevent medical errors. They then responded to a series of scenarios about specific medical errors and indicated how dreaded, how preventable, how harmful, and so forth, they viewed each one. At the end of the series of scenarios, they were again asked the same questions about how much they could rely on themselves and how much they could rely on their doctor, hospital, and so forth, to
prevent medical errors. The responses to the prequestions and the postquestions were quite similar, except for the self-efficacy question. After completing the extensive battery of medical scenario questions, respondents increased their sense of self-efficacy for preventing errors (average prescore = 3.8; average post score = 4.0, p < .05). This finding, along with the finding that those who have read about medical errors feel a greater sense of self-efficacy for preventing errors, suggests that exposure to specific information about errors is helpful in increasing self-efficacy. This further suggests that informing the public could be productive in increasing consumer self-efficacy in error prevention and engaging consumers as vigilant partners in the processes of care.

Are people who have a higher sense of self-efficacy more likely to engage in recommended actions? Perceived self-efficacy in preventing errors is strongly related to the reported likelihood of taking preventive actions (r = .3, p < .001). Self-efficacy is a particularly strong predictor of taking preventive actions that are newer and unfamiliar and ones that require questioning medical authority. Figure 1 shows the relationship between perceived self-efficacy and likelihood of taking preventive action for the three categories of actions. The findings indicate that those with higher perceived self-efficacy were more likely to take actions that are newer and likely unfamiliar, such as choosing a hospital based on a report that compares medical errors, than are those with less perceived self-efficacy (r = .24, p < .001). They are more likely to question health care workers about whether they have washed their hands (r = .21, p < .001). Furthermore, those with higher perceived self-efficacy were more likely to seek out comparative performance information in making hospital choices. Higher perceived self-efficacy respondents were more likely to respond positively to the statement, “If you read in the newspaper that local hospitals had been rated in terms of the frequency and type of medical errors made at each hospital, how likely would you be to seek out this information before choosing a hospital?” (r = .15, p < .05).

Finally, we use structural equation modeling to explore the hypothesized pathway that leads to increased likelihood of taking preventive actions. Based on the findings from the bivariate analysis, we hypothesized that there are two key pathways leading to the increased likelihood of preventive action, one operating through a sense of self-efficacy and a separate one operating through a belief that the specific actions were effective in preventing errors.

Figure 2 shows the results of the path analysis. At each step in the path analysis, the relationship between two contiguous variables is assessed while controlling for preceding variables in the model. Variables that are part of the hypothesized causal model are referred to as endogenous variables; those outside the model (control or antecedent factors) are referred to as exogenous variables. The exogenous variables are demographic or health care experience variables; the endogenous variables are the two key variables hypothesized to be antecedent to taking preventive actions: self-efficacy and the index of the perceived effectiveness of prevention actions.

The findings indicate that there are two separate pathways to increasing the likelihood of prevention actions, one through a belief in the effectiveness of the actions and one through a sense of self-efficacy. These two variables together account for 26 percent of the variance in the “likelihood of taking prevention actions.” The two variables, self-efficacy and the index of perceived effectiveness, are not correlated with each other, indicating two separate pathways. However, it must be noted that a path model does not confirm the hypothesized direction of the relationships, nor does it indicate whether, in fact, the significant relationships are causal.

Figure 3 shows the additive effects of self-efficacy and perceived effectiveness of actions on the likelihood of engaging in those actions. Those with both low self-efficacy and who perceived the actions to be less effective in preventing errors were 33 percent less likely to engage in preventive actions as
compared to those high on both of those dimensions. Influencing these factors could be very productive for increasing the consumer role in prevention.

**DISCUSSION**

The findings indicate that most of the actions recommended for consumers are viewed as effective in preventing errors. However, many are actions in which consumers indicate that they are less likely to actually engage. Actions that require them to question health professionals’ actions or judgments are actions in which consumers are less likely to engage. Having a greater sense of self-efficacy in being able to prevent medical error is significantly linked with a greater reported likelihood of engaging in preventive action. Those with

Additive Effects of Self-Efficacy and Perceived Effectiveness on Likelihood to Taking Preventive Actions

Note: The overall relationship is significant at the $p < .001$ level. The between-group significances vary from not significant to significance at the $p < .01$ level.

more exposure to hospital care (via a family member’s hospitalization) or more exposure to information about errors appear to have a greater sense of efficacy in preventing them.

Consumers may lack familiarity with the concept of medical errors and may not have a well-articulated idea of what medical errors might entail or how they relate to patient safety. Just the simple act of reading about medical error scenarios, as part of their participation in this study, had a small but significant impact on participants’ sense of self-efficacy for preventing errors. Reading about and reacting to scenarios about errors likely helped them to develop a greater understanding of what they are. This finding supports the notion that educating the public about medical errors and what they can do to protect themselves may be effective in increasing actual protective behaviors.

The path analysis findings indicate that there are at least two distinct pathways to increasing consumer likelihood of engaging in protective actions: one operates through a sense of self-efficacy, the other through perceptions about the effectiveness of specific actions in preventing errors. To have maximal impacts, educational approaches should aim to increase both a sense of self-efficacy and the understanding of the effectiveness of the recommended actions. Messages that support the patient role in preventing errors will likely increase feelings of self-efficacy (Bandura 1991). Because some of the actions
require patients to question medical authority, and because this goes against social norms for how a patient typically behaves, normative support from providers for these types of actions may be particularly important. Training patients to be more assertive and involved in the medical encounter has been shown to be effective in increasing patient involvement in their own care and in producing better health outcomes (Kaplan, Greenfield, and Ware 1989). Perhaps training patients or their family members to be vigilant partners in care while in the hospital may also result in more involvement and fewer medical error injuries. However, like engaging patients as partners in their own chronic illness care, engaging patients as partners in error prevention will require multiple interventions and strategies and a recognition that change will come in stages. Increasing awareness of the problem and the roles that patients can play is a first step.

Finally, the findings also suggest that patient safety is likely a less effective term for communicating with the public about medical errors. Patient safety is perceived to be a somewhat less important issue than medical errors and may be less well understood. If we want to engage consumers in error prevention activities, then messages to them must be in language that is understandable and compelling.

In addition to a lack of clarity about the scope of the medical error problem, there is little known about how effective patients can be in preventing errors. Studies that examine the contribution that patients and their families make to improving safety are needed, along with evaluations that assess the efficacy of interventions designed to boost the patient contribution to safety.

This investigation has the limitations inherent in using a convenience sample and in relying on self-reports. Study questions ask respondents to indicate how they might behave, yet their actual behavior could be quite different from what they report or what they believe their behavior would be in a given situation. The use of a convenience sample, while common in investigations of a new area, also has limitations. The use of convenience samples is of particular concern when doing a descriptive study, where the distribution of some characteristic is being described in the population. However, when the primary focus of the study is on the nature of the relationships among factors, as is the case with this investigation, there is less concern about the use a convenience sample, as it is unlikely that the relationships among factors would vary by sample characteristics. The respondents in the study had experience with medical errors at the same rate as has been reported among nationally representative samples, indicating that on at least this key dimension, they are similar to a representative sample. The findings do begin to illuminate how consumers understand and may respond to efforts to engage them in actions to prevent medical errors. Nonetheless, larger studies with representative samples are needed to confirm the findings reported here. Furthermore, studies that build on these findings and begin to help us understand how best to communicate about errors are also needed. Of particular interest is to determine how much concern or worry that different types of messages about medical errors engender in consumers and what level of concern is most productive for encouraging preventive actions.

APPENDIX
Twenty-Nine Medical Error Scenarios

1. A medical error occurs during surgery.
2. An error occurs in the prescription medication that is given.
3. An error occurs in a laboratory test report.
4. An error in diagnosis is made.
5. Unnecessary surgery is performed.
6. The wrong prescription medication is given.
7. The patient is prescribed a treatment, but it is not the most effective one.
8. Too high a dose of a prescription medication is given.
9. A patient is given unnecessary lab tests.
10. A routinely used test to detect disease in its early stage is not done.
11. A patient gets too high a dose of medication when the intravenous (IV) equipment fails.
12. A drug allergy is overlooked when a medication is prescribed.
13. A patient is given unnecessary X rays.
14. Surgery is performed on the wrong limb.
15. Lab test results are never reported to the doctor or the patient.
16. An instrument is left inside a patient during surgery.
17. A medical condition is overlooked and not diagnosed.
18. The patient is not given the medications that are prescribed.
19. Surgery is performed on the wrong patient.
20. An invasive cardiac procedure is done unnecessarily.
21. The prescribed diet for the patient is overlooked, and the patient is given food not on his or her allowed diet.
22. Too low a dose of prescription medication is given.
23. An MRI machine malfunctions while the patient is inside it.
24. The wrong IV medication is given.
25. Too high a dose of a chemotherapy drug is given.
26. A mistake in patient identification leads to the wrong blood type being transfused.
27. A mistake in a review of a biopsy leads to a diagnosis of cancer when there is no cancer.
28. A patient is sent home too quickly after surgery.
29. An unconscious patient in the intensive care unit gets too high a dose of medication when the IV equipment fails.

REFERENCES


